NSC BRIEFING

5 December 1958

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ANALYSIS OF BOUNDER BOMBER

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1. A new Soviet bomber (code name BOUNDER) was first sighted at Moscow - Fili Airfield on 27 August [redacted] 25X1

[redacted] During the next several weeks additional 25X1

sightings were made and [redacted]

several rearview and side-view photographs were obtained. General Cabell briefed the Council on this new aircraft on September 18.

[redacted] 25X1

3. A vigorous analysis effort on BOUNDER has been under way in the intelligence community since late summer. Individual departments and agencies have analyzed and measured the photography and in some instances have consulted with appropriately cleared experts outside the intelligence community. In addition there have been considerable collaboration and exchange of views between the various members of the intelligence community. These exchanges have produced substantial agreement concerning the physical characteristics of the BOUNDER, the fact that it is now powered with jet engines designed to use conventional fuel, and on the probable performance characteristics of the plane with its present engines. Our preliminary analysis indicates BOUNDER to have a medium range capability with its present jet engines using conventional fuel.

4. There is still insufficient information available on BOUNDER to firmly establish its design mission although the aircraft is believed to be a bomber prototype. Its estimated principal dimensions are: length - 200 feet, wing span - 78½ feet, and our tentative estimate of its weight is 300,000 lbs. It has a modified delta-wing configuration and apparently is designed for supersonic flight. Our preliminary analysis indicates that even the use of in-flight refueling and, eventually, high energy chemical fuels, would still give BOUNDER only an inadequate capability against the United States on two-way missions.

5. Based on our analysis of available photographs, the portion of the fuselage forward of the wing appears to be exceptionally long for a conventionally fueled bomber. As one possible explanation, we have considered the applicability of various types of nuclear propulsion systems to the BOUNDER design. Examination indicates that all known types of aircraft nuclear propulsion systems present shortcomings in their application to the presently known configuration of BOUNDER. Further, no connection has been established between BOUNDER and the Soviet atomic energy program. As a result of this review, as well as a review of the aerodynamic and structural problems related to a nuclear propulsion system installation, we believe it unlikely that BOUNDER, in its present configuration, is connected with a Soviet nuclear propelled aircraft development. Representatives of the Air Force, however, believe there is a possibility that BOUNDER may represent a developmental step in Soviet achievement of a nuclear aircraft.

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6. If, in fact, BOUNDER proves to be a developmental model intended for use with nuclear propulsion, extensive modification and a long period of further development would be required prior to operational availability.

7. The BOUNDER apart, we estimate that within the next few years the USSR could fly an airborne nuclear testbed with at least one nuclear power unit providing useful thrust during some portion of the flight.

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